with kind regards
F.B.

ON CIRCULAR WARDS FOR HOSPITALS,

AND THEIR APPLICATION AT HASTINGS.

Read at the HEALTH CONGRESS
HASTINGS, May, 1889,

BY

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HASTINGS:
Printed by F. J. Parsons, Claremont.
1889.

CIRCULAR WARDS FOR HOSPITALS.

By KEITH D. YOUNG, Esq., F.R.I.B.A.

In the few remarks I have to make on the subject of Circular Wards for Hospitals, I propose to confine myself to some points in regard to which it may fairly be claimed that actual experience has justified theory. The question of the relative value of the circular and rectangular form, has been very fully discussed, but, as yet, it cannot be said to have got entirely beyond the theoretic stage. For, until we are in a position to compare two wards of exactly equal capacity, receiving the same class of patients, and worked by the same Hospital Staff, the one being circular, and the other rectangular in form, we cannot, with any approach to accuracy, estimate comparatively the value of the two systems.

The points which I wish to bring before you are some of those in which the circular system has been assailed, and in which I submit that it has in practice justified itself.

Let me take first the assertion that in a circular ward, the light would not penetrate to a sufficient distance for practical purposes, on account of the necessarily greater distance between the opposite windows. It is, of course, true that the distance in a circular ward of the smallest size, between opposite windows, will be greater than in a rectangular ward of ordinary width, but from the very nature of the circular form, the sum of the light shining in through all the windows, and converging to the centre, must be as great as that which passes through an equal number of windows in the rectangular ward. Where the difference lies, is in the fact that each bed will be further away from the window immediately opposite to it in a circular ward, than would be the case in a rectangular ward. That this circumstance is really of no importance whatever, could very readily be shown by reference to the old form of double wards, still to be seen at Guy's, the London, St. Bartholomew's, and St. Mary's Hospitals, where the central rows of beds are not only some 24 feet distant from the windows opposite, but derive their sole light from those windows, the spiral partition being in some cases a solid wall, in some, a wooden screen. But a better refutation of this criticism is to be found in the fact, that neither at Burnley, nor at Antwerp, nor in your own Hospital, has the slightest inconvenience or difficulty been experienced on this score.

Secondly, it was said that the circular form would present serious difficulties in the way of efficient supervision. This assertion was, to a certain extent, justified by the way in which, at Antwerp and Burnley, the central space in the ward is obstructed by a large nurse's room in the one case, and by a spiral staircase in the other. These obstructions do not exist in the Hastings Hospital, and I believe the staff will bear me out in saying that its wards are as capable of being efficiently supervised, as any rectangular wards in existence. At Burnley, the testimony of the staff is that, but for the central obstruction, the wards would be the perfection of Hospital wards.

It will, I think, be admitted that the centre of a circular ward should be kept as free as possible from obstruction, and that nothing should there be erected except the structure necessary to contain the stoves with their smoke flues and ventilating shafts.

The third point to which I wish to draw attention is one that has been almost wholly ignored by the opponents of the circular system. It is the value of the circular form, in cases where, as in the Hastings Hospital, and at the Miller Hospital, at Greenwich, the site is restricted, or presents difficulties in the way of planning. An illustration drawn from your own Hospital will put this point very clearly before you. Suppose the central block to be exactly the same as it now is, and that it was desired to build two blocks of rectangular wards, of the same capacity as the existing circular wards. You would find that eastwards, the rectangular block would absorb nearly the whole of the adjoining house in White Rock Place, and that westwards, the corresponding block would extend over the greater part of White Rock Road, and that the necessary projections for the lavatories would either have to be built out at the back, and valuable cross ventilation sacrificed, or a further encroachment made at either end for the purpose. Again, at the Miller Hospital, at Greenwich, it was proved to demonstration, that only by the adoption of the circular form was it possible to plan properly lighted and ventilated wards on the site.

One word as to cost. It has been asserted on several occasions, that the cost of building a circular ward is far greater than that of building a rectangular one. That the cost is greater, I am not prepared to deny—but, that it is so enormously disproportionate as some writers would have us believe, is not the case. At the Great Northern Central Hospital we have the means of a very near approximation to a comparative estimate, and the difference is certainly under 2 per cent. For reasons which it is not necessary to discuss, I cannot fix the difference with certainty, but I believe the variation I have mentioned to be very near the truth.

There are now in active operation three general Hospitals with circular wards, in this country: at Greenwich, Hastings, and Burnley, and a large general Hospital is in progress at Liverpool, with wards of both the circular and rectangular form. In London, I hope that at no very distant date the Great Northern Central Hospital will be completed, by the addition of its circular block. At Antwerp, there is the great Civil Hospital with over 300 beds, and eight circular pavilions. When all these Hospitals are complete, it will be possible to obtain a more accurate idea of the value of the circular form as opposed to the rectangular, than is at the present time available. Meantime, I venture to think that the circular ward has proved itself to be, for all practical purposes, fully equal to the older form, and, under certain circumstances, distinctly its superior.

ON CIRCULAR WARDS.

AT THE HASTINGS HOSPITAL,

By FREDERIC BAGSHAWE,
M.A., M.D., Cantab., F.R.C.P.

PHYSICIAN TO THE HOSPITAL.

The Hastings Hospital has now been in full operation for upwards of a year and a half, and I venture to say that we have every reason to be gratified with our experience of the building as a whole, and of the circular wards in particular.

Under the peculiar conditions of site which our Hospital ground offers, lying, as it does, alongside of a noisy thoroughfare running east and west, long parallelogram wards would naturally have had their walls and windows north and south, and would have had the disadvantages of excessive exposure to the noise ot busy traffic, to the heat of the midday sun, both direct, and reflected from the sea in front, and to the force of the sea winds. The circular towers, in which the wards lie, offer but one point of contact at a time to the direct or reflected light, so that external light and heat are more distributed and less excessive than they would otherwise be, and less surface of resistance is offered to the sea gales. The same is true of noise, and it is a matter of frequent remark that our wards are far less noisy than the situation would lead one to expect, and the patients are not at all inconvenienced by it. Something is, no doubt, due to the thickness of the walls, and to the double glazing of the windows.

The aspect of the interior of the wards is cheerful, roomy, and agreeable. Every bed ranged round the circular wall is equidistant from the central fireplaces, thus every patient has his equal share of fire-heat and brightness.

Probably, in the Hastings Hospital, with its 12-bed wards, and with a diameter of about 40 feet, we have the perfection of the size of a circular ward. A convenient space of about 12 feet intervenes between the foot of the bed and the central fireplaces, wherein to arrange table, chairs, and couches for the use of patients who are able to leave their beds. In the smaller wards of the Miller Hospital at Greenwich, with their diameter of 35 beds, the intervening space is such as to give a somewhat cramped feeling to the ward, while in the larger circles at Burnley they have utilised the inner circle round the central staircase for the service of children's cots. The same excessive floor space is seen in the Antwerp Hospital, with its diameter of 60 feet, and its 20 beds ranged round the circumference. The Hastings wards depend entirely for warming upon their three central fire stoves. Each has its air chamber at the back, and when in full work admits of a good current of warm and fresh air into the ward. In cold weather, and when there is a strong breeze, it is requisite to close the inlet on the side facing the wind, otherwise the inflation of cold air is so rapid that it has no time to get heated before it comes into the ward.

The general heating of the ward, even in cold weather, is adequate to the requirements in this climate. Were it not so, it would be easy to place a single coil of hot water pipe round the circumference of the ward.

The temperature of the centre of the ward is often some four degrees warmer than the circumference, even with the inlet apertures under the beds kept closed. It is found by experience that these can seldom be open in winter without causing excessive draught.

The fireplace inlets, together with the discreet opening of the fan-lights at the top of the windows on the lee side of the ward, supply sufficient inlet of fresh air to keep the ward fresh. The extractors near the ceiling, placed in the central shaft above the fireplaces do their duty well. The ventilation is thus efficiently carried out, and it is seldom that there is any stuffiness in the wards; when there is, it is easily remedied by care and attention to the openings. The working of the wards is exceedingly satisfactory. The nurses find it very convenient and easily managed, and the central chimney stack offers no obstruction of any practical moment, and both patients and nurses prefer the circular to the ordinary form of ward.

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